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RESPONSE UNDER 37 C.F.R. 1.116 EXPEDITED PROCEDURE EXAMINING GROUP 2875

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

MYOJO ET AL.

Examiner:

P. MACCHIAROLO

Serial No.:

09/762,367

Group Art Unit:

2875

Filed:

APRIL 2, 2001

Docket No.:

10873.634USWO

Title:

FLUORESCENT LAMP

CERTIFICATE UNDER 37 CFR 1.10

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I hereby certify that this correspondence is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, MAIL STOP AF, P.O. Box 1450, Alexandria VA 22313-1450.

By: ______ unkers

RESPONSE

MAIL STOP AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450



Dear Sir:

This is in response to the Office Action mailed on January 16, 2003. Reconsideration of the application in view of the following remarks is respectfully requested.

Claims 1-6, 19, 23-25 and 27-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ward, US 4,205,258. Applicants respectfully traverse this rejection.

Ward discloses an high intensity discharge ("HID") lamp including a fuse to prevent anomalous heat generation. The fuse disclosed by Ward is designed specifically for the type of heat and other conditions present in an HID lamp. When an outer envelope 14 that encloses a hard vacuum is filled with a gas for some reason (e.g., a slow leakage from the outer envelope 14 or an arc tube 12) an anomalous discharge occurs in the outer envelope 14. The heat generated by the anomalous discharge melts a sleeve member 44 of a fuse means 34 so that a fusible

element 36 (connected to an electrical conductor 32a) and an electrical conductor 32b are connected electrically. As a result, the anomalous discharge is stopped and the power supply to a pair of electrodes 16a, 16b positioned within the arc tube 12 at both ends thereof is cut off to stop an arc discharge between the electrodes 16a, 16b, thereby preventing further anomalous heat generation.

The fuse means 34 disclosed by Ward is connected between the electrical conductors 32a, 32b, and the electrodes 16a, 16b are connected to the electrode conductors 32a, 32b, respectively. In contrast, claim 1 requires an electrode coil mounted between two lead wires that are held by a bulb-end glass, and means for preventing overheating that is mounted between the lead wires that support the electrode coil. As a result, the means for preventing overheating according to claim 1 is connected in parallel with an electrode coil. Therefore, the structure required by claim 1 is not disclosed by Ward.

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The means for preventing overheating required by claim 1 has particular usefulness for the conditions of a fluorescent lamp. When the emissive coating of the electrode coil is dissipated at the end of a lamp life, the means for preventing overheating according to claim 1 melts and retains its molten state, and thus connects the lead wires electrically to prevent the bulb-end glass from being melted and damaged. As a result of this configuration, the discharge between a pair of electrode coils provided at ends of the lamp bulb continues even after the means for preventing overheating melts and connects the lead wires electrically.

The fuse means 34 disclosed by Ward is connected in parallel with a discharge path between the electrodes 16a, 16b and is not associated with or in proximity to an electrode coil."

When an anomalous discharge occurs in the outer envelope 14 due to the slow leakage, the fuse means 34 melts and connects the electrical conductors 32a, 32b electrically regardless of the activity of an electrode coil of the bulb. Thus, Ward fails to disclose connecting electrical wires just before or after an electrode coil is disconnected.

Ward also discloses that the fuse means 34 is provided outside of the arc tube 12. In contrast, the means for preventing overheating of claim 1 is provided within the bulb and located between the electrode coil and the bulb-end glass. For the fluorescent lamp of claim 1, the electrode coil generates extraordinary heat by the dissipation of the emissive coating. At the

time of dissipation of the emissive coating, the means for preventing overheating is melted faster than the bulb-end glass because a distance from the electrode coil to the means for preventing overheating is shorter than a distance from the electrode coil to the bulb-end glass. Thus, it is possible to prevent the bulb-end glass from being melted. Because the fuse means 34 disclosed by Ward is not provided inside the arc tube 12, but is rather provided outside the arc tube 12, the fuse means 34 is melted by heat generated by the anomalous discharge in the outer envelope 14.

Since the type of lamp (fluorescent lamp) required by claim 1 differs from the type of lamp disclosed by Ward (an HID lamp), the source of heat generation is different in each lamp. Therefore, different safety devices should be required to prevent the generated heat from damaging the bulb. Thus, one skilled in the art would not look to a fluorescent lamp configuration to produce a safety device for an HID lamp, or vice a versa. Moreover, one of skill in the art would not reasonably anticipate that the function of the features disclosed by Ward would be found if such features were used in a fluorescent lamp. Therefore, Applicants submit that both the structure disclosed by Ward and the differences in technology and safety features required by fluorescent lamps versus HID lamps would render non-obvious the features of claim 1 in light of the disclosure of Ward and the knowledge of one of skill in the art. Withdrawal of the rejection is respectfully requested.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted

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Date: 16,2003

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conclusion

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